WHAT IS CLAIMED IS:

1. A method for transmitting an encoded ultra-wideband signal, the method comprising:

a first step in which an ultra-wideband terminal of a transmission part uses an infrared channel to request, of an ultra-wideband terminal of a reception part, a security key;

a second step in which the ultra-wideband terminal of the transmission part receives, in response to the request, a security key transmitted from the ultra-wideband terminal of the reception part;

a third step in which the ultra-wideband terminal of the transmission part encodes transmission data using the received security key; and

a fourth step in which the ultra-wideband terminal of the transmission part uses ultra-wideband to transmit the encoded transmission data to the ultra-wideband terminal of the reception part.

2. The method of claim 1, further comprising a step in which the ultra-wideband terminal of the transmission part, having received the security key, transmits an acknowledgment signal (ACK) to the ultra-wideband terminal of the reception part.

3. The method of claim 2, wherein one of the ultra-wideband terminals of the transmission part and of the reception part is configured to perform as a client and the other of the terminals is configured to perform as a server to the client.

4. The method of claim 1, wherein one of the ultra-wideband terminals of the transmission part and of the reception part is configured to perform as a client and the other of the terminals is configured to perform as a server to the client.

5. A method for receiving an encoded ultra-wideband signal, the method comprising:

a first step of generating a security key in response to reception of a security key request signal from an ultra-wideband terminal of a transmission part;

a second step of transmitting the security key to the ultra-wideband terminal of the transmission part using an infrared radiation channel and of storing the security key;

a third step of receiving encoded data transmitted from the ultra-wideband terminal of the transmission part through ultra wideband (UWB); and

a fourth step of restoring original data from the data received through the third step using the security key stored through the second step.

6. The method of claim 5, wherein the second step further comprises a sub-step of re-transmitting the security key if an acknowledgment signal (ACK) transmitted from the ultra-wideband terminal of the transmission part is not received within a predetermined time period after the security key is transmitted.

7. The method of claim 6, wherein the infrared radiation channel is configured as specified by the Infrared Data Association (IrDA).

8. The method of claim 5, wherein the infrared radiation channel is

configured as specified by the Infrared Data Association (IrDA).

9. An ultra-wideband terminal comprising:

a control section for controlling the ultra-wideband terminal to use an ultra wideband to transmit/receive data encoded by a predetermined security key and to use an infrared radiation channel to transmit/receive the security key;

an ultra-wideband process section for using ultra wideband to perform data communication with another ultra-wideband terminal;

an infrared radiation process section for performing data communication using said infrared radiation channel with said another ultra-wideband terminal;

a first data buffer for storing either transmission data to be transmitted to said another ultra-wideband terminal that have not yet been encoded, or data restored after being received from said another ultra-wideband terminal; and

a security key generation section for generating a security key in response to a security key generation command of the control section.

10. The ultra-wideband terminal of claim 9, further comprising: a security key buffer for storing the security key generated from the security key generation section and for storing a security key received from said another ultra-wideband terminal through the infrared radiation process section.

11. The ultra-wideband terminal of claim 10, further comprising a second data buffer for storing encoded data to be transmitted to said another ultra-wideband terminal through the ultra-wideband process section and for storing data received from another

ultra-wideband terminal that have not yet been restored.

12. The ultra-wideband terminal of claim 11, wherein:

when there is data to be transmitted to said another ultra-wideband terminal in the first data buffer, the control section requests a security key to said another ultra-wideband terminal through the infrared radiation process section; and

when a security key is received from said another ultra-wideband terminal through the infrared radiation process section, the control section stores the received security key in the security key buffer.

13. The ultra-wideband terminal of claim 12, wherein the control section encodes transmission data stored in the first data buffer using said received security key, stores the encoded transmission data in the second data buffer, and controls the second data buffer so that the encoded transmission data are transmitted to said another ultra-wideband terminal through the ultra-wideband process section.

14. The ultra-wideband terminal of claim 13, wherein:

the ultra-wideband process section and the infrared radiation process section are each configured for using ultra-wideband to perform data communication with a plurality of ultra-wideband terminals;

the security key buffer is configured for storing a security key received from any of the plural ultra-wideband terminals; and

the second data buffer is configured for storing encoded data to be transmitted to any of the plural ultra-wideband terminals through the ultra-wideband

process section and for storing data not yet restored which has been received from any of the plural ultra-wideband terminals.

15. The ultra-wideband terminal of claim 12, wherein:

the ultra-wideband process section and the infrared radiation process section are each configured for using ultra-wideband to perform data communication with a plurality of ultra-wideband terminals;

the security key buffer is configured for storing a security key received from any of the plural ultra-wideband terminals; and

the second data buffer is configured for storing encoded data to be transmitted to any of the plural ultra-wideband terminals through the ultra-wideband process section and for storing data not yet restored which has been received from any of the plural ultra-wideband terminals.

16. The ultra-wideband terminal of in claim 11, wherein:

the ultra-wideband process section and the infrared radiation process section are each configured for using ultra-wideband to perform data communication with a plurality of ultra-wideband terminals;

the security key buffer is configured for storing a security key received from any of the plural ultra-wideband terminals; and

the second data buffer is configured for storing encoded data to be transmitted to any of the plural ultra-wideband terminals through the ultra-wideband process section and for storing data not yet restored which has been received from any of the plural ultra-wideband terminals.

17. The ultra-wideband terminal of claim 10, wherein:

the ultra-wideband process section and the infrared radiation process section are each configured for using ultra-wideband to perform data communication with a plurality of ultra-wideband terminals; and

the security key buffer is configured for storing a security key received from any of the plural ultra-wideband terminals.

18. The ultra-wideband terminal of claim 9, wherein the ultra-wideband process section and the infrared radiation process section are each configured for using ultra-wideband to perform data communication with a plurality of ultra-wideband terminals.

19. The ultra-wideband terminal of claim 9, wherein:

the control section transmits a security key generation command to the security key generation section in response to a security key request signal received through the infrared radiation process section; and

the control section, upon said storing the security key generated, reads from the security key buffer said security key generated and performs a control operation so that said security key generated is transmitted to said another ultra-wideband terminal through the infrared radiation process section.

20. The ultra-wideband terminal of claim 19, wherein,

when having received encoded data through the ultra-wideband process section, the control section stores the encoded data in the second data buffer and restores original data from the data stored in the second data buffer using a security key stored in the security key buffer.